

WILDLIFE MANAGEMENT UNIT 11B (32) - ANTHRO/RANGE CREEK, RANGE CREEK

Boundary Description

Carbon, Utah, Duchesne, and Emery counties - Boundary begins in Green River and Interstate 70; then west on I-70 to highway US-6; northwest on US-6 to Highway US-191; northeast on US-191 to the Argyle Canyon road; southeast on the Argyle Canyon road to the Nine-mile Canyon road; east on the Nine-Mile Canyon road to its end near Bull Canyon; then continuing along Nine-Mile Creek to the Green River; south along the Green River to I-70 and beginning point.

Herd Unit Description

Unit 11B (32) contains the eastern portion of Carbon County, the northeastern part of Emery County, a southern piece of Duchesne County and small portions of Utah county. This triangular unit encompasses the West Tavaputs Plateau, bounded by the Book Cliffs and Soldier Canyon on the west, the Price River-Duchesne River drainage divide on the north and Green River on the east. Topography is steep and rough. The major drainages are: Nine-Mile Creek, which drains Minnie Maude, Dry, Argyle, Cow, and Harmon Canyons into the Green River; Range Creek, which drains the east side; and Pace, Whitmore and Horse Canyons. Elevation ranges from 4,064 feet at Green River to 10,285 feet on Bruin Point. Communities bordering the west side of the unit are Helper, Price, Wellington, Sunnyside, East Carbon, and Green River.

Normal winter range below the 8,500 foot elevation completely encompasses the summer range. Severe winter range is limited to areas below 7,000 feet. On the east side of the unit, steep bare slopes limit use to the ridge tops and canyon bottoms along lower Nine-Mile Creek and the Green River. During severe winters, all deer wintering in these areas are forced into the canyon bottoms, usually causing heavy winter losses. Along the west side of the unit, from Soldier Creek Canyon east to Horse Canyon, access to the winter range is good. However, from Horse Canyon south, the Roan and Book Cliffs drop off sharply presenting major obstacles to deer migration and preventing use of much of the lower elevation range. Winter concentration areas include: Nine-Mile Creek, Rock House Cow Camp area, Cedar Ridge, Argyle Canyon, and Little Park.

During the summer of 1966, Coles and Pederson (1967) inventoried the deer winter range on the Range Creek unit. The overstory types identified were: pinyon-juniper, covering 89% of the winter range, sagebrush (3%), greasewood (3%), seedings (2%), and agricultural land (2%). Although the most extensive, the pinyon-juniper type is the least productive. This type averages 327 lbs/forage/acre and has been heavily grazed historically. The sagebrush-rabbitbrush and sagebrush-grass associations have also been intensely grazed, but with production of respectively 942 lbs/acre and 381 lbs/acre, these can be very important vegetation types on the winter range. With an estimated 1,498 lbs/acre, the greasewood-grass type is the most productive on the unit. However, this type is restricted to only canyon bottoms and the valley floors, and receives greatest use only during severe winters. Coles and Pederson concluded that overall forage production on the unit (winter range) was low due to the nature of the land, soils and native vegetation, and also past grazing abuses.

The unit presents several challenges to public land and wildlife managers. Since 75% of the summer range is private land, hunting access is limited and may become more restricted unless hunters are willing to pay trespass fees. Some of the ranches are privately managed for trophy hunting.

Grazing Summary

All of the study sites on the Range Creek deer herd unit occur on lands administered by the BLM. The 16 study sites on the unit occur in 8 different allotments. Sites at Deadman (#1) and Airport Bench (#2) occur in the Coal Creek allotment which is grazed by 612 cows from April 15 to May 31 in a three pasture rest rotation

system. Some fall grazing also occurs as the cattle drift off the mountain. The Airport (#3) site occurs on the Hayes Wash allotment, a winter allotment, which is grazed by 61 cows for short periods between October 15 and May 31. Trend study #4, Coal Creek, is in the Soldier Canyon allotment which is also a winter allotment. Grazing occurs from November 1 to February 28 with 117 cows. Grazing is also permitted from March 1 to May 31. The study in B Canyon (#5) occurs within the Mud Springs allotment which utilizes a four pasture deferred rotation schedule to graze 338 cows from October 15 to June 15.

Study sites Upper Cottonwood (#6), Cottonwood (#7), Cedar Corral (#8), Cedar Ridge (#9), Twin Hollow (#15) and Steer Ridge (#16) occur in the large Green River allotment. It consists of 8 pastures in which grazing takes place on some pastures in the spring and other pastures in the summer. Site #10, Upper Cottonwood, is used in the summer from June 1 to October 31 by 900 cattle. The other study sites are used in the spring with grazing occurring from April 15 to May 31 by 500 cattle. This allotment has been closed to grazing since 1994. A large herd of wild horses also use this allotment.

Study sites at Upper Little Park Wash (#14), Little Park Enclosure (#15) and Williams Draw (#16) occur within the Little Park allotment which is grazed by 49 head of cattle from June 1 to October 31. Study site number 20, Prickly Pear, is in the Stone Cabin allotment which utilizes a four pasture deferred rotation schedule to graze 315 cows from May 1 to September 30. Grazing on the study area usually occurs in the spring.

Big Game Trends

The management objectives for the Range Creek portion of unit 11 are to maintain a wintering population of 6,000 deer with a herd composition of 15 bucks to 100 does. Thirty percent of these bucks are to be 3 point or better. Harvests have continually increased since the harsh winters of the mid 1980's when less than 400 bucks were harvested. Buck harvests ranged between 830 and 756 between 1988 and 1991 then dropped dramatically to 581 in 1992 and only 282 in 1993. This decline is due to the extremely harsh winter of 1992-93. The fawn/doe ratio has also declined from a high of 67 fawns/100 does in 1988-89 to only 34 in 1992-93. Numbers rebounded somewhat to 47 fawns/100 does in 1994-95, then dropped to only 25 in 1995-96. Wildlife management units Anthro and Range Creek were combined in 1998 into the Nine Mile management unit with the Anthro portion being subunit 11A and Range Creek subunit 11B. Fawn/doe ratios for the entire unit are currently moderately high at 74 fawns/100 does in 1997-98 and 69 in 1998-99.

Elk are present in the area in small but increasing numbers. Current management objectives are to maintain a winter herd size of 1,000 elk on the Range Creek sub unit with a herd composition of 8 bull to 100 cows. At least 4 of those bulls being 2 ½ years of age or older. Aerial counts in 1999 estimate 1,200 elk which is above the management objective (BLM 00).

There is a portion of what used to be the Iclander Wash antelope unit between the Book Cliffs and US Highway 6 which is now part of the Range Creek Wildlife Management unit. In 1972, 150 antelope were introduced to the area and then 165 more in 1982. Aerial counts have increased from 174 in 1977 to 1,022 in 1989 and 703 in 1995. Hunting was allowed in 1974 and permits have increased from 10 that year to 33 in 1994. In 1990, 49 buck permits and 76 doe-fawn permits were sold. Although only a small percentage of the herd is found east of Highway 6, that number is increasing with the rest of the herd. These increasing numbers of elk and antelope will necessitate continued monitoring of vegetative trend on the Range Creek unit.

Trend Study Site Establishment

Interagency Range Trend Studies were established on 16 sites within the Range Creek unit in June 1986. Of these, three were located on summer range and the remainder were placed on winter range. In 1994, three new winter range sites were added and four dropped after meetings with the BLM and Division managers. During the 2000 season, 13 of the remaining 15 sites were reread.

SUMMARY

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Of the 15 trend study sites read in 1994, thirteen were re-read in 2000. All but one site, Upper Cottonwood (11B-6), samples deer and/or elk winter ranges. Lower elevation winter ranges north and east of Price were sampled with trend studies, Deadman (11B-1), Airport Bench (11B-2), Airport (11B-3), Coal Creek (11B-4) and 'B' Canyon (11B-5). All of these sites except Airport and B Canyon, had a stable or slightly improved soil trend. Browse trends were slightly down at Deadman and down at Airport Bench. Both sites sample old pinyon-juniper chainings. These sites support very limited preferred browse and increasing pinyon and juniper trees. B-Canyon, another old chaining, had a downward browse trend due to a wildfire which burned the area in 1996. Browse trends at Airport and Coal Creek are up. Herbaceous understories showed stable to improved trends on all sites except Deadman and Coal Creek. These 2 studies have little herbaceous production. Wildlife use on most of these low elevation winter ranges appears to be down compared to earlier readings. This may be due to the mild winters of the past few years.

Higher elevation winter ranges on the Range Creek Mountains include: Cottonwood (11B-7), Cedar Corral (11B-8), Cedar Ridge (11B-9), Prickly Pear (11B-14), Twin Hollow (11B-15) and Steer Ridge (11B-16). All of these sites have a stable or slightly upward soil trends but conditions are judged poor at Prickly Pear. Browse trends are slightly down at Cottonwood and up slightly at Cedar Ridge. All other sites displayed a stable browse trend. Herbaceous trends are slightly down at Cedar Corral, Prickly Pear and Twin Hollow, stable at Cedar Ridge and Steer Ridge, and improving at Cottonwood.

Winter range trend studies on the south end of the unit include: Upper Little Park Wash (11B-10), Little Park Enclosure (11B-11) and Williams Draw (11B-12). Due to a declining trend of deer use on these areas, only one site, Little Park Enclosure, was reread in 2000. Soil conditions and the herbaceous trend were slightly improved since 1994 but the browse trend was slightly down.

One summer range trend study, Upper Cottonwood (11B-6), was read on the unit. It samples a meadow surrounded by aspen, Douglas fir, and sub-alpine fir trees. Soil, browse, and herbaceous trends are stable.

Soils on Unit 11B have an average soil temperature of 58°F which is relatively cool compared to many winter range sites in the other units. This lower average soil temperature may also be the reason why cheatgrass is not dominant on any of these study sites. Many winter range sites throughout the state with higher soil temperatures (70° F) are dominated by cheatgrass and other annuals. All sites except for Airport (11B-3) and Upper Cottonwood (11B-6) had low levels of soil phosphorus, less than 10 ppm, which has been shown to limit normal plant growth and development. Potassium levels were high on all sites.

Browse trends were down or slightly down on 5 of the 13 sites sampled in 2000 (39%). Herbaceous trends were down on only 3 of the 13 sites (23%). However, due to the extremely dry conditions sum of nested frequency of perennial forbs declined on 10 of the 13 sites (77%).

TREND SUMMARY

Site No. and Name	Category	1994	2000
11B-1 Deadman	soil	1	3
	browse	4	2
	herbaceous understory	2	3
11B-2 Airport Bench	soil	1	4
	browse	2	1
	herbaceous understory	1	4
11B-3 Airport	soil	2	2
	browse	5	5
	herbaceous understory	3	3
11B-4 Coal Creek	soil	3	3
	browse	5	5
	herbaceous understory	4	4
11B-5 B Canyon	soil	3	2
	browse	4	1
	herbaceous understory	3	5
11B-6 Upper Cottonwood	soil	4	3
	browse	2	3
	herbaceous understory	4	3
11B-7 Cottonwood	soil	4	4
	browse	3	2
	herbaceous understory	4	4
11B-8 Cedar Corral	soil	3	4
	browse	4	3
	herbaceous understory	2	2
11B-9 Cedar Ridge	soil	5	4
	browse	5	4
	herbaceous understory	3	3

(1) = down, (2) = slightly down, (3) = stable, (4) = slightly up
 (5) = up, est = site established, NR = site not read

Site No. and Name	Category	1994	2000
11B-10 Upper Little Park	soil	4	NR
	browse	5	NR
	herbaceous understory	1	NR
11B-11 Little Park Exclosure	soil	4	4
	browse	2	2
	herbaceous understory	3	4
11B-12 Williams Draw	soil	3	NR
	browse	3	NR
	herbaceous understory	3	NR
11B-14 Prickly Pear	soil	est	3
	browse	est	3
	herbaceous understory	est	2
11B-15 Twin Hollow	soil	est	4
	browse	est	3
	herbaceous understory	est	2
11B-16 Steer Ridge	soil	est	4
	browse	est	3
	herbaceous understory	est	3

(1) = down, (2) = slightly down, (3) = stable, (4) = slightly up

(5) = up, est = site established, NR = site not read